CAPE COD CANAL MASSACHUSETTS

SURVEY (REVIEW OF REPORTS)



DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS.

MAY 1973

REPORT OF THE DIVISION ENGINEER

SYLLABUS

A navigation survey study of Cape Cod Canal, Massachusetts, has been completed by the Division Enginner in response to a resolution of the Committee on Public Works of the House of Representatives, United States, adopted 17 February 1949, and in response to a resolution of the Committee on Public Works of the United States Senate adopted on 12 March 1949. The report thereon finds that no further detailed study is warranted at the Cape Cod Canal at this time.

Several times during the 1950's and 1960's work was undertaken in response to the resolutions. However, sufficient data to support the expenditure necessary to provide desired improvements was not furnished by interested parties, and on each occasion submission of a final report was tentatively delayed. Recent efforts to produce economic justification for deepening the existing 32-foot channel revealed a general lack of interest for such work. Consequently, it is concluded that navigational interests would not be best served by a further delay. The Division Engineer finds, therefore, that navigational improvements are not warranted at the Cape Cod Canal at this time.

N REPLY REFER TO:

DEPARTMENT OF THE ARMY

NEW ENGLAND DIVISION, CORPS OF ENGINEERS 424 TRAPELO ROAD

WALTHAM, MASSACHUSETTS 02154

NEDED-R

SUBJECT: Survey (Review of Reports) on Cape Cod Canal, Mass.

HQDA: (DAEN-CWP-E) WASH DC 20314

AUTHORITY

1. This report is submitted in compliance with a resolution adopted on 17 February 1949 by the Committee on Public Works of the House of Representatives, and a resolution adopted on 12 March 1949 by the Committee on Public Works of the United States Senate. These resolutions read as follows:

> "RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE HOUSE OF REPRESENTATIVES, UNITED STATES, That the Board of Engineers for Rivers and Harbors, be, and is hereby, requested to review the reports on Cape Cod Canal, Massachusetts, submitted in House Document Numbered 795, Seventy-First Congress, Third Session and subsequent reports, with a view to determining whether any modification of the existing project is advisable at this time, particularly deepening the canal to 40 feet in the land cut and approaches."

> "RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE UNITED STATES SENATE, That the Board of Engineers for Rivers and Harbors, created under Section 3 of the River and Harbor Act, approved June 13, 1902, be, and is hereby, requested to review the reports on the Cape Cod Canal, Massachusetts, printed in Rivers and Harbors Committee Document

Numbered 15, Seventy-Fourth Congress, First Session, and prior and subsequent reports, with a view to determining whether the existing project should be modified in any way at this time, particularly with a view to deepening the canal to 40 feet."

The Chief of Engineers assigned the review of reports authorized by the House Resolution to the New England Division on 29 March 1949. On 8 April 1949, approval was granted to New England Division by the Chief of Engineers to combine this study with the review of reports authorized by the Senate Resolution of 12 March 1949.

PURPOSE AND EXTENT OF STUDY

2. The purpose of this study is to determine the need and economic justification for modifying the existing Federal navigation project for Cape Cod Canal in accordance with the requirements of users of this waterway. Available maps, charts, commercial statistics and other data pertaining to the waterway have been studied, as well as information provided by interested parties at a public hearing held on 14 September 1951 along with more recent updated data. All aspects of locally desired improvements have been considered.

DESCRIPTION

- 3. Cape Cod Canal is an open, sea-level canal, located at the base of Cape Cod in southeastern Massachusetts, about 50 miles south of Boston. It follows a course generally southwesterly from Cape Cod Bay, at the east end, to Buzzards Bay, at the west end. The land cut is 7.7 miles long, and with approach channels, the total length is 17.5 miles.
- 4. The existing Federal navigation project for the Cape Cod Canal was adopted on 21 January 1927, supplemented by Public Works Acts of 1933 and 1935, and River and Harbor Acts of 1935, 1954, and 1958. The initial authorization provided for purchase of the canal, including a 600-foot long jetty and a 3,000-foot long breakwater, both at the east end of the canal. The project also provides for a 32-foot channel throughout its 17.5 mile length; a 25-foot mooring basin at the easterly end and a 32-foot mooring basin at the westerly end of the canal; the construction of two fixed highway bridges having horizontal clearances of 500 feet and vertical clearances of 135 feet, and one vertical-lift

railroad bridge with the same clearances when the span is raised; a west boat basin 18 feet deep; an east boat basin having depths of 8 and 13 feet; a harbor of refuge for small vessels by dredging a 15-foot channel into Onset Bay and by providing two 8-foot anchorages and a 15-foot turning basin in Onset Bay; a dike 10,700 feet long extending from Stony Point in Buzzards Bay; dikes between Rocky Point, Hog Island and Mashnee Island, also in Buzzards Bay; an improved lighting system; and other accessory and minor features which may be deemed necessary and to be in accordance with plans approved by the Chief of Engineers.

- 5. The existing project was completed in 1965 at a cost of \$32,139,344 (including \$115,432 in contributed funds). Operation and maintenance costs total \$34,818,133 through Fiscal Year 1972.
- 6. The Cape Cod Canal was purchased from the Boston, Cape Cod, and New York Canal Company in 1928 at a cost of \$11,500,000. Its value lies not in its significance as a port but as a facility for the expeditious movement of traffic bound to and from east coast ports; primarily in Virginia, New York, Rhode Island, Pennsylvania, New Jersey, Maryland, Connecticut and Nova Scotia. Other movements have been recorded to many other east coast ports. In recent years, movements from several foreign ports have been recorded for petroleum products required by the newly constructed electric plant located in Sandwich, about one mile west from the east entrance to the canal, owned by Canal Electric Company.
- 7. In addition to berthing facilities, the electric company has dredged a channel 37 feet deep, at mean low water, through Cape Cod Bay to the plant, within the limits of the 32-foot Federal channel. In response to increased power demand, construction of an additional generating unit is being contemplated.
- 8. The tributary area is considered to be comprised of those ports to or from which the existing commerce through the canal is destined or originates. It is, therefore, considered that the Cape Cod Canal is not a local project, and any improvement which can facilitate commerce between industrial ports must result in widespread benefits.

PROBLEMS UNDER INVESTIGATION

9. To determine navigation improvements desired and whether any modification to the existing canal project is advisable, and to provide

an opportunity for all interested parties to express their views on the subject, a public hearing was held at the Massachusetts Department of Public Works Building, 100 Nashua Street, Boston, Massachusetts, on 14 September 1951. Twenty five persons attended representing Federal, state and local governments, shipping interests and other local interests concerned with navigation improvements of the canal.

- 10. The plan of improvement presented was for the provision of a channel 40 feet deep at mean low water from deep water in Cape Cod Bay to deep water in Buzzards Bay. Data presented indicated that colliers being capable of sustaining fully loaded drafts of 39-40 feet were being light loaded to take advantage of the shorter distances travelled when using the canal. Also, deeper draft tankers were coming into being, having 32-35 foot drafts, and found it necessary to bypass the canal route due to its limiting depth.
- 11. Due to insuffiency of supporting data presented at the public hearing in 1951, a formal inquiry was made in 1956 to obtain specific data from commercial interests in support of the improvement. The response lacked sufficient favorable data to warrant further project formulation at that time. Although this general lack of interest had developed, it was believed then that near-future requirements would provide the necessary justification and feasibility for canal improvement. Consequently, the submission of a final report was tentatively delayed.
- 12. In the late 1950's and early 1960's consideration was given to providing a depth between the existing 32-foot depth and the requested 40-foot depth. Quantity and cost estimates were computed for alternate channel depths, with existing traffic patterns and vessel sizes being considered. The results of this work revealed that a 37-foot channel was economically justified for vessels being used in coastwise trade at that time. However, projecting the trend of vessel size, which was realistically expected to continue to increase, indicated that deepening the canal to the 37-foot depth would be beneficial for only a limited time frame after which no additional benefit would be realized beyond that for the existing 32-foot channel. It was decided to once again delay the report pending the anticipated submission of more favorable supporting data.
- 13. Efforts were renewed in 1972 to determine the general attitude towards deepening the canal to 40 feet. An inquiry was sent to

various interests including the American Maritine Association and the American Institute of Merchant Shipping. The American Institute of Merchant Shipping in turn querried their member organizations, numbering about 35, to obtain their views and recommendations. Member organizations of the American Maritine Association, about 20, were contacted by the Corps for their views.

14. Results of all contacts revealed a lack of interest in further improvements to the Cape Cod Canal. More precisely, only two companies, which indicated an interest for a 40-foot canal channel, would be in a position to provide supporting data for the improvement. Such data, however, would not be sufficient to warrant an estimated expenditure of between twenty and twenty-five million dollars for a 40-foot channel improvement.

DISCUSSION

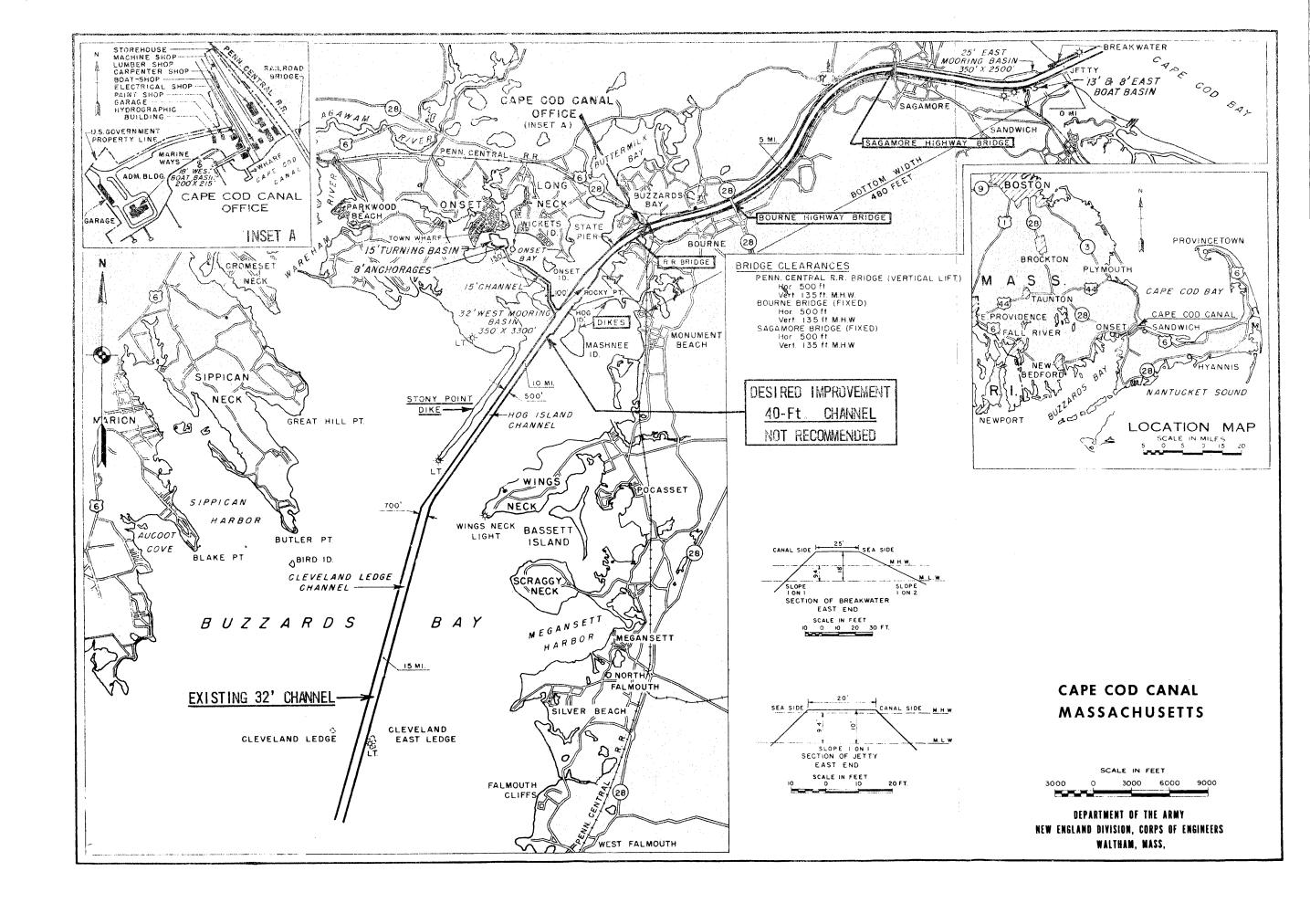
- 15. The prospects for increased use of the Cape Cod Canal are not too favorable at the present time. With few exceptions, vessels transiting the canal having drafts of 30 feet or more are tankers carrying petroleum products. Excluding vessels with shipments for the power plant in Sandwich, which use the 37-foot channel provided by these private interests, most of the petroleum products are eastbound for the port of Boston, with shipments also bound for Salem, Massachusetts, and Portland, Maine. These shipments originate primarily from New York and New Jersey ports, and increases in such shipments requiring use of the canal do not offer a favorable outlook.
- 16. Vessels coming from New York and New Jersey ports via the Cape Cod Canal transit the East River. Because of the small shipments involved, larger vessels are not necessary. Large tankers from South American and African ports find it more beneficial to transit deeper ocean waters and would continue to do so even if a deeper canal channel was provided. The canal route saves from 65 to 150 miles in distance for coastal shipping to the northeast; however, as ship size increases, ship speed through the canal decreases. Other delays such as fog and the necessity for one way traffic can eliminate the time saved by traveling the shorter canal route.
- 17. During the six year period 1966 to 1971, annual vessel trips for ships having drafts in excess of 30 feet declined from 206 in 1966

to 170 in 1970 to lll in 1971. This decrease is in accord with the development of deeper draft tankers in the 40,000 DWT class, and greater, having loaded drafts in excess of 36 feet, and the retirement from service of the older tankers of shallower draft. Larger vessels are finding it more advantageous to bypass the canal than to encounter unavoidable delays, which can be more costly than the additional distances travelled.

CONCLUSIONS AND RECOMMENDATIONS

18. In view of the foregoing, unfavorable results of further study are evident because of the lack of support and economic feasibility. It is, therefore, recommended that no navigational improvements be made at the Cape Cod Canal at this time.

JOHN H. MASON Colonel, Corps of Engineers Division Engineer





DEPARTMENT OF THE ARMY

NEW ENGLAND DIVISION, CORPS OF ENGINEERS

424 TRAPELO ROAD

WALTHAM, MASSACHUSETTS 02154

REPLY TO ATTENTION OF: NEDED-R

16 May 1973

PUBLIC NOTICE CONCERNING THE COMPLETION OF THE NAVIGATION STUDY REPORT ON CAPE COD CANAL, MASSACHUSETTS

Notice is hereby given that a brief letter report concerning navigation improvements in the Cape Cod Canal, Massachusetts, has been made by the New England Division. The study was made in response to resolutions of the Public Works Committees of the U.S. House of Representatives and U.S. Senate, adopted 17 February 1949 and 12 March 1949 respectively. The study findings indicate that improvements for navigation are not feasible nor justifiable at this time.

The study was initiated by holding a public meeting on 14 September 1951 at Boston, Massachusetts. All requests for navigation improvements made at that meeting, and at subsequent conferences, by concerned interests have been considered. The plan of improvement presented was for the deepening of the existing 32-foot channel to 40 feet between Cape Cod Bay to the east and Buzzards Bay to the west. Several times during the 1950's and 1960's, efforts were undertaken to evaluate the benefits of an improved channel; however, the great costs to be incurred could not be economically justified. Recent efforts to obtain data to support channel improvement revealed a general lack of interest for such work at this time.

In accordance with law, the report is being referred for review to the Board of Engineers for Rivers and Harbors in Washington, D. C. Interested parties may present written views on the report to the Board. Statements submitted should not repeat material previously presented at public hearings held by the Division Engineer or contained in his report, as this information is already available to the Board. Information submitted should be new, specific in nature and bear directly on the findings in the report.

Written communications should be mailed to the Board of Engineers for Rivers and Harbors, Washington, D. C. 20315, in time to reach the Board by 16 June 1973. If extension of this date is considered necessary, written request stating reasons and additional time desired should be mailed to the Board soon after receipt of this notice.

Information furnished by mail is considered just as carefully by the Board and bears the same weight as that furnished at public hearings; therefore, hearings will be held only when found to be in the public interest. Requests for a hearing should be fully supported by reasons why the new material cannot be submitted just as effectively by mail as at a hearing.

Copies of information received by mail will not be furnished to other parties. However, such information will be regarded as public information (unless the correspondent limits its effective value by requesting otherwise), and may be inspected and notations made therefrom by other interested parties, in the office of the Board.

The Board will not take final action on the report until after expiration of this notice, or any extension thereof that may be granted, and full consideration of all information submitted in response thereto. Should the Board contemplate action materially different from the recommendations of the Division Engineer, appropriate notice to that effect will be furnished to local interests directly concerned inviting their views and comments prior to final action.

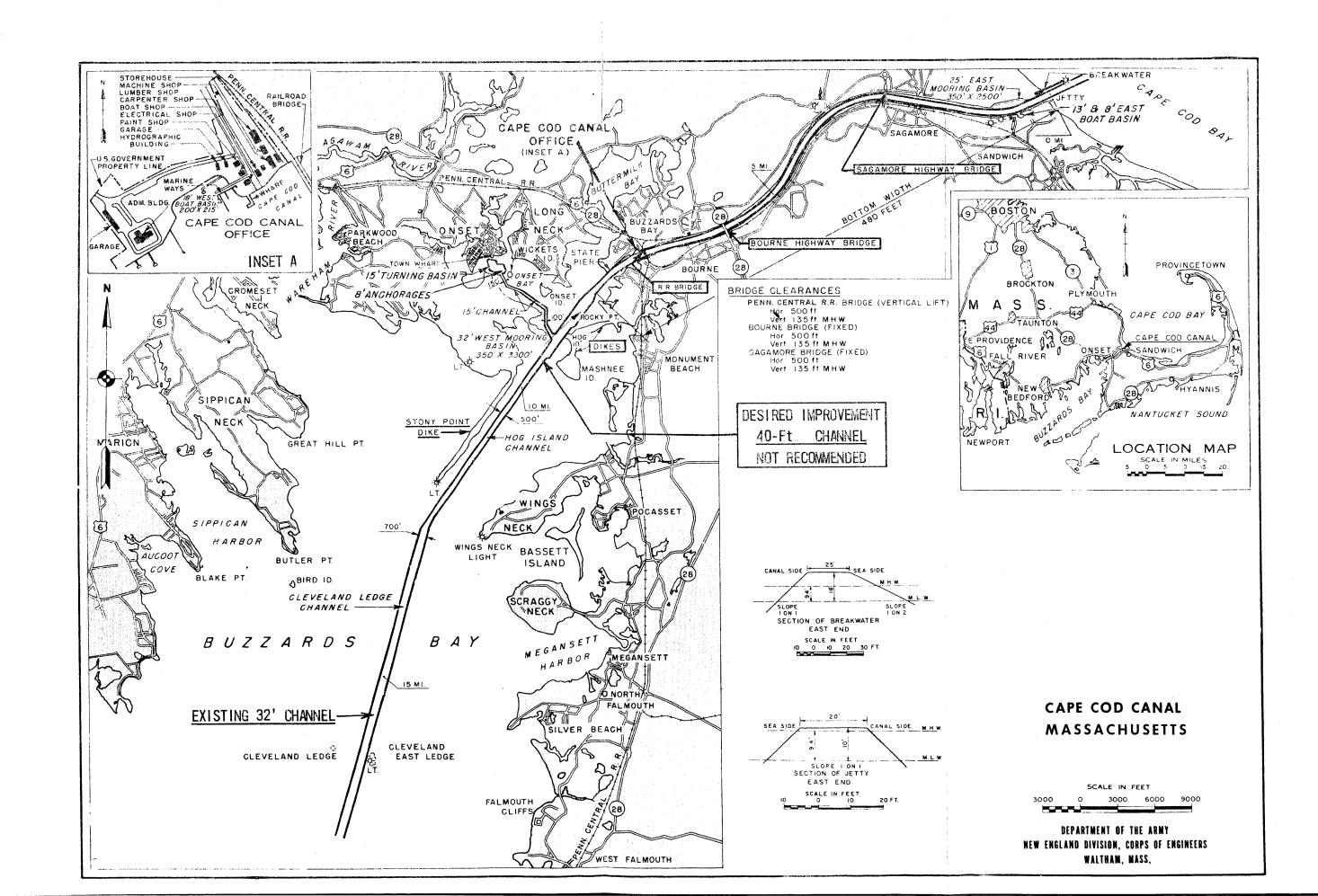
Further information may be obtained from this office. Interested parties, including the press, may make such notes of the contents of the report as they desire. However, copies of the report will not be loaned for use outside of the office, but interested parties may purchase copies of the report, or parts thereof, including illustrations, at the cost of reproduction. Copies may be purchased from the Division Engineer, 424 Trapelo Road, Waltham, Massachusetts, 02154, for \$1.00 per copy. Checks or money orders should be made payable to "Treasurer of the United States".

You are requested to give the foregoing information to any persons known by you to be interested in the report, and who not being known by the Division Engineer, did not receive a copy of this public notice.

l Incl Map OHN H. MASON

Colonel, Corps of Engineers

Division Engineer



LIST OF PERSONS & INTERESTS TO WHOM ANNOUNCEMENTS WERE SENT RELATIVE TO COMPLETION OF THE REPORT CONCERNING THE CONGRESSIONALLY AUTHORIZED CAPE COD CANAL, MASSACHUSETTS NAVIGATION IMPROVEMENT STUDY 16 MAY 1973

CONGRESSIONAL

Honorable Edward M. Kennedy, United States Senate, Washington, DC 20510
Honorable Edward M. Kennedy, United States Senator, Room 2400A,

John F. Kennedy Federal Bldg., Boston, Mass. 02203
Honorable Edward W. Brooke, United States Senate, Washington, DC 20510
Honorable Edward W. Brooke, United States Senator, Room 2003H,

John F. Kennedy Federal Bldg., Boston, Mass. 02203
Honorable Gerry E. Studds, House of Representatives, Washington, DC 20515
Honorable Gerry E. Studds, Representative in Congress, 2 North Station,

Hingham, Mass. 02043

GOVERNOR

Honorable Francis W. Sargent, Governor of the Commonwealth of Massachusetts, State House, Boston, Mass. 02133 (2)

FEDERAL INTERESTS

Office of the Chief of Engineers, HQDA (DAEN-CWP-D) James Forrestal	
Bldg., Washington, DC 20314	(5)
Resident Member, Board of Engineers for Rivers & Harbors, Temp. Bldg.	,
C, 2d and Q Sts., S.W., Washington, DC 20315	(3)
Director, Coastal Engineering Research Center, 5201 Little Falls Road,	ν.,
N.W., Washington, DC 20016	(3)
Director, U.S. Army Engineer Waterways Experiment Station, P.O. Box	•
631, Vicksburg, Mississippi 39181	(3)
Director, Institute for Water Resources, Corps of Engineers, Hoffman	•-•
Bldg., Rm. 216, 2461 Eisenhower Avenue, Alexandria, Va. 22314	(3)
Director, Water Resources Council. Suite 800, 2120 "L" Street, N.W.	•
Washington, DC 20037	
Regional Leader, Eastern Region Water Resources Council, Rm. 806,	
2120 "L" St., N.W. Washington, DC 20037	

Regional Administrator, Region I, U.S. Dept. of Housing and Urban	
Development, Rm. 800, JFK Federal Bldg., Boston, Mass. 02203 Director, Area Office, U.S. Dept. of Housing and Urban Development, Bulfinch Bldg., 15 New Chardon St., Boston, Mass. 02114	
Regional Coordinator, Northeast Region, U.S. Dept. of Interior, 2003K JFK Federal Bldg., Boston, Mass. 02203	
Chief, Eastern Field Operation Center, Bureau of Mines, U.S. Dept. of Interior, 4800 Forbes Ave., Pittsburgh, Pa. 15213	
Regional Director, Northeast Region, Bureau of Outdoor Recreation, U.S. Dept. of Interior, Federal Bldg., 1421 Cherry St., Philadelphia,	
Pa. 19102 Regional Director, Region 5, Bureau of Sport Fisheries and Wildlife,	(2)
U.S. Dept. of Interior, U.S.P.O. and Courthouse, Boston, Mass. 02109	(3)
Chief Hydrologist, Geological Survey, U.S. Dept. of Interior, Washington D.C. 20242	(2)
Regional Hydrologist, Geological Survey, U.S. Dept. of Interior, Arlington Towers, Arlington, Va. 22209	(2)
District Chief, WRD, U.S. Geological Survey, Dept. of the Interior, 2300 JFK Federal Bldg., Boston, Mass. 02203	
Director, Northeast Region, National Park Service, Dept. of the Interior, 143 South Third St., Philadelphia, Pa. 19106	(2)
Director, Office of Water Resources Research, Dept. of the Interior, Washington, D.C. 20240	
DOT Coordinator for Water Resources, U.S. Dept. of Transportation (AWL/83), 400 Seventh St., S.W., Washington, D.C. 20591	(2)
Commandant, U.S. Coast Guard, Washington, D.C. 20591 Commander, First Coast Guard District, JFK Federal Bldg., Government	(2)
Center, Boston, Mass. 02203	(3)
Administrator, Federal Highway Administration, U.S. Dept. of Trans-	
portation, 400 Seventh St., S.W., Washington, D.C. 20591 Director, Office of Policy and Planning, Federal Railroad Administration, U.S. Dept. of Transportation, 400 Seventh St., S.W., Washington, D.C. 20591	(2)
Regional Director, Region 1, Federal Railroad Administration, U.S.	2222
Dept. of Transportation, JFK Federal Bldg., Rm. E 309, Boston, Mass. The Administrator, Environmental Protection Agency, Waterside Mall,	02203
4th and M Sts., S.W., Washington, D.C. 20460 Supervisor, Concord Area Office, U.S. Fish and Wildlife Service,	(2)
Federal Building, 55 Pleasant St., Concord, N.H. 03301 Regional Federal Highway Administrator, Region 1, 4 Normanskill Blvd.,	(2)
Delmar, N.Y. 12054	
Administrator, Federal Railroad Administration, U.S. Dept. of Trans- portation, 400 Seventh St., S.W., Washington, D.C., 20591	

Chairman, New England River Basins Commission, Rm. 200, 97 Court	(0)
Street, Boston, Mass. 02108	(2)
The Administrator, Soil Conservation Service, U.S. Dept. of	/ 7 \
Agriculture, Washington, D.C. 20250	(7)
State Conservationist, Soil Conservation Service, U.S. Dept. of	/ - \
Agriculture 27-29 Cottage Street, Amnerst, Mass. 01002	(5)
Director Northeast Regional Technical Service Center, Soil	
Conservation Service, U.S. Dept. of Agriculture, 7000 west	(0)
Chester Pike, Upper Darby, Pa. 19082	(2)
Water Resources Coordinator, Department of Commerce, 6010 Executive	
Blvd., Rockville, Maryland 20852	
Director, Boston Business Service Field Office, Bureau of Domestic	
Commerce, 441 Stuart St., Boston, Mass. 02116	
Assistant Secretary for Economic Development, Dept. of Commerce,	
Washington, D.C. 20230	
Regional Director, Atlantic Regional Office, Economic Development	
Administration, 320 Walnut St., Philadelphia, Pa. 19106	
Eastern Region Director, Maritime Administration, Dept. of Commerce,	
26 Federal Plaza, New York, N.Y. 10007	
Area Representative, Maritime Administration, Dept. of Commerce, 7737	
Hampton Blve., Norfolk, Virginia 23505	
Associate Director, Hydrology, National Weather Service, Office of	
Hydrology (W2), NOAA, Dept. of Commerce, Silver Spring Md. 20910	
Regional Hydrologist, Eastern Region, NOAA National Weather Service,	
Dept. of Commerce 585 Stewart Ave., Garden City, N.Y. 11530	
The Director, National Ocean Survey, NOAA, U.S. Dept. of Commerce,	
Rockville, Maryland 20852	
Director, Atlantic Marine Center, National Ocean Survey, NOAA, U.S.	
Dept. of Commerce, 439 West York St., Norfolk, Virginia 23510	
Regional Director, National Marine Fisheries Service, U.S. Dept. of	
Commerce, Federal Building, 14 Elm Street, Gloucester, Mass. 01930	
Regional Economics Division, Office of Business Economics, U.S.	
Dept. of Commerce, Washington, D.C. 20230	
The Surgeon General, USPHA/DHEW, 330 Independence Ave., S.W.	
Washington, D.C. 20201	
Regional Director, PHS Region I, DHEW, JFK Federal Bldg., Boston,	(4)
Mass. 02203	(.)
Division Engineer, Federal Highway Administration, Dept. of Trans-	
portation, JFK Federal Bldg., Government Center, Boston, Mass. 02203	

Regional Director, Region 3, Bureau of Commercial Fisheries, Post Office Bldg., Gloucester, Mass. 01930 Commandant, First Naval District, 495 Summer St., Boston, Mass. 02127 Regional Administrator, Region 1, EPA, 2303 John F. Kennedy Federal Bldg., Boston, Mass. 02203 Chief, Bureau of Power, Federal Power Commission, Washington, D.C. 20426 Regional Engineer, Federal Power Commission, Room 2207, 26 Federal. Plaza, New York, N.Y. 10007 Chairman, Council on Environmental Quality, 722 Jackson Place, N.W., Washington, D.C. 20006	(2) (2) (3) (3) (2)
NATIONAL AND REGIONAL INTERESTS	
Natural Resources Defense Council, Inc., 36 West 44th St., New York N.Y. 10036 American Shore & Beach Preservation Assoc., Box 1246, Rockville, Maryland 20850	(5)
Water Resources Congress, 1130 17th St., N.W., Suite 500, Washington, D.C. 20036 Executive Secretary, New England Interstate Water Pollution Control Commission, 607 Boylston St., Boston, Mass. 02116 Environmental Policy Center, 324 C Street, S.E., Washington, D.C. 20003 American Institute of Merchant Shipping (AIMS), Suite 1000, 1625 "K" St., N.W., Washington, D.C. 20006 American Association of Port Authorities, 111 Eighth Ave., New York, N.Y. 10011 National Rivers & Harbors Congress, 1028 Connecticut Ave., N.W., Washington, D.C. 20036 National Association of Engine & Boat Manufacturers, Inc., 537 Steamboat Road, Greenwich, Conn. 06380 Coordinator, Northeastern Resources Development Assoc., NRECA, 2000	(50)
Co-Chairman, New England Regional Commission, 55 Court Street, Boston, Mass. 02108 Executive Secretary, New England Interstate Water Pollution Control Commission, 73 Tremont St., Boston, Mass. 02108 Executive Director, American Maritime Association, 1612 "K" St., N.W., Suite 510, Washington, D.C. 20006 Propeller Club of the United States, P.O. Box 577, Boston, Mass. 02102 Executive Director, Maine Port Authority, Maine State Pier, Portland, Maine 04111	(25)

STATE INTERESTS

- Honorable Mary L. Fonseca, State Senator, 400 David St., Fall River, Massachusetts
- Honorable. John F. Alymer, State Senator, Tern Lane, Centerville, Massachusetts 02632
- Honorable Allan R. McKinnon, State Senator, 78 Cottage Lane, Weymouth,
 Massachusetts 02188
- Honorable George C. Mendonca, State Senator, 17 Jenkins St., New Bedford, Massachusetts 02740
- Honorable Anna P. Buckley, State Senator, 16 Rutland Sq., Brockton, Massachusetts 02401
- Honorable William Q. MacLean, Jr., State Representative, 60 Lafayette St., Fairhaven, Massachusetts 02719
- Honorable John J. Bowes, State Representative, 39 Lumbert Mill Rd., Centerville, Massachusetts 02632
- Honorable Richard E. Kendall, State Representative, 21 Green Harbor Road, East Falmouth, Massachusetts 02536
- Honorable Howard C. Cahoon, Jr., State Representative, Parallel St., Harwich, Massachusetts 02645
- Honorable Charles A. MacKenzie, Jr. State Representative, 134 Hathaway St., Wareham, Massachusetts 02571
- Honorable Terrence P. McCarthy, State Representative, Webaqua Rd., Oak Bluffs, Massachusetts 02557
- Honorable George C. Young, State Representative, 20 Lawson Rd., Scituate, Massachusetts 02066
- Honorable Raymond S. Peck, State Representative, 25 Summit Ave., North Dartmouth, Massachusetts 02747
- Honorable Roger S. Babb, State Representative, 690 River St. Norwell, Massachusetts 02061
- Honorable Robert W. Gillette, State Representative, 84 Little's Ave., Pembroke, Massachusetts 02359
- Honorable William J. Spence, State Representative, 14 Amber Road, Hingham, Massachusetts 02043
- Honorable Alfred Almeida, State Representative, 194 Standish Ave., Plymouth, Massachusetts 02360
- Honorable Arthur L. Desrocher, State Representative, 20 Milk St., Nantucket, Massachusetts 02554
- Honorable Donald R. Gaudette, State Representative, 1125 Pequot St., New Bedford, Massachusetts 02745
- Honorable J. Louis LeBlanc, State Representative, 3735 Acushnet Ave., New Bedford, Massachusetts 02745
- Honorable Edward P. Coury, State Representative, 689 County St., New Bedford, Massachusetts 02740
- Honorable Ronald A. Pina, State Representative, 600 Rockdale Ave., New Bedford, Massachusetts 02740
- Honorable William Saltzman, State Representative, 513 Rockdale Ave, New Bedford, Mass. 02740

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Honorable John R. Buckley, State Representative, 754 Plymouth St., Abington, Massachusetts 02351
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Honorable Robert B. Ambler, State Representative, 36 Church St., Weymouth, Massachusetts 02189

Honorable William A. Connell, Jr., State Representative, 54 Torrey St., Weymouth, Massachusetts 02190

Commerce and Labor Committee, State House, Boston, Mass. 02133

Local Affairs Committee, State House, Boston, Mass. 02133

Natural Resources & Agriculture Committee, State House, Boston, Mass. 02133

Transportation Committee, State House, Boston, Mass. 02133

Urban Affairs Committee, State House, Boston, Mass. 02133

Director, Massachusetts Water Resources Commission, State Office Bldg., 100 Cambridge St., Boston, Mass. 02202

Director, Mass. Turnpike Authority, Prudential Ctr., Boston, Mass. 02199 Chairman, Mass. Port Authority, 470 Atlantic Ave., Boston, Mass. 02210

Manager, Mass. Bay Transportation Authority, 500 Arborway, Jamaica Plain, Mass. 02130

Commissioner, Mass. Dept. of Public Works, 100 Nashua St., Boston, Mass. 02114 Chief Engineer, Mass. Dept. of Public Works, 100 Nashua St., Boston Mass. 02114 (2)

Deputy Chief Engineer, Division of Waterways, Mass. Dept. of Public Works, 100 Nashua St., Boston, Mass. 02114

Bridge Engineer, Division of Highway Engineering, Mass. Dept. of Public Works, 100 Nashua St., Boston, Mass. 02114

Commissioner, Mass. Dept. of Natural Resources, State Office Bldg., 100 Cambridge St., Boston, Mass. 02202

Director, Division of Marine Fisheries, Mass. Dept. of Natural Resources, State Office Bldg., 100 Cambridge St., Boston, Mass. 02202

Director, Division of Fisheries & Game, Mass. Dept. of Natural Resources, State Office Bldg., 100 Cambridge St., Boston, Mass. 02202

Director, Division of Water Resources, Mass. Dept. of Natural Resources, State Office Bldg., 100 Cambridge St., Boston, Mass. 02202

Director, Division of Water Pollution Control, Mass. Dept. of Natural Resources, State Office Bldg., 100 Cambridge St., Boston, Mass. 02202

Commissioner, Mass. Department of Public Health, State House, Boston, Mass. 02133

Director, Division of Sanitary Engineering, Mass. Department of Public Health, State House, Boston, Mass. 02133

Commissioner, Mass. Department of Commerce & Development, State Office Bldg., 100 Cambridge St., Boston, Mass. 02202

Director, Division of Economic Development, Mass. Dept. of Commerce & Development, State Office Bldg., 100 Cambridge St., Boston, Mass. 02202 Executive Director, Metropolitan Area Planning Council, 44 School St.,

Boston, Mass. 02108

NEWS MEDIA

```
Associated Press, 260 Summer St., Boston, Mass. 02210
United Press International, 20 Ashburton Place, Boston, Mass.
News Editor, Boston Globe, 135 Morrissey Blvd., Boston, Mass.
                                                              02107
News Editor, Boston Herald American, 300 Harrison Ave., Boston, Mass. 02118
News Editor, Christian Science Monitor, 1 Norway St., Boston, Mass. 02115
News Editor, Cape Cod Standard Times, 319 Main St., Hyannis, Mass. 02601
News Editor, The Brockton Enterprise, 60 Main St., Brockton, Mass.
News Editor, Barnstable Patriot, 24 Pleasant St., Hyannis, Mass. 02601
News Editor, Cape Cod News, 44 Barnstable Rd., Hyannis, Mass. 02601
News Editor, Falmouth Enterprise, Falmouth, Mass. 02541
News Editor, Wareham Currier, Wareham, Mass. 02571
News Editor, New Bedford Standard Times, 555 Pleasant St., New Bedford,
    Mass. 02740
News Editor, Worcester Telegram Gazette, 20 Franklin St., Worcester,
    Mass. 01601
News Editor, Providence Journal Bulletin, 75 Fountain St., Providence,
    Rhode Island 02902
News Director, WGBH-TV, 125 Western Ave., Allston, Mass. 02134
News Director, WBZ-TV, 1170 Soldiers Field Rd., Boston, Mass. 02134
News Director, WCVB-TV, 5 TV Place, Needham, Mass. 02194
News Director, WNAC-TV, RKO General Building, Government Center, Boston,
           02114
    Mass.
News Director, WTEV-TV, Television Center, New Bedford, Mass. 02704
News Director, WJAR-TV, 176 Weybossett St., Providence, R. I.
News Director, WPRI-TV, 24 Mason St., Providence, R. I. 02903
News Director, WBZ, 1170 Soldiers Field Rd., Boston, Mass. 02134
News Director, WCOP, 234 Clarendon St., Boston, Mass. 02116
News Director, WEEI, 4450 Prudential Tower, Boston, Mass. 02199
News Director, WHDH, 50 Morrissey Blvd., Boston, Mass. 02125
News Director, WRKO, RKO General Bldg., Government Center, Boston,
    Mass. 02114
News Director, WGBH, 125 Western Ave., Allston, Mass. 02134
News Director, WMEX, 111 Broadway, Boston, Mass. 02116
News Director, WPLM, Route 3, Plymouth, Mass. 02360
News Director, WCOD, 28 Barnstable Rd., Hyannis, Mass.
 News Director, WBSM, Route 6, New Bedford, Mass. 02740
 News Director, WNBH, 432 County Rd., New Bedford, Mass. 02744
 News Director, WOCB, South Sea Ave., West Yarmouth, Mass.
 News Director, WVLC, Box 1170, Orleans, Mass. 02653
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POST OFFICES

Postmaster, Buzzards Bay, Mass. 02532 Postmaster, Plymouth, Mass. 02360 Postmaster, Wareham, Mass. 02571 Postmaster, Marion, Mass. 02738
Postmaster, Fairhaven, Mass. 02719
Postmaster, Hyannis, Mass. 02601
Postmaster, Sagamore, Mass. 02561
Postmaster, Sandwich, Mass. 02563
Postmaster, Falmouth, Mass. 02541
Postmaster, New Bedford, Mass. 02741

LOCAL INTERESTS

Operations Manager, Boston Shipping Association, Inc., 131 State Street, Boston, Mass. 02109 Mr. John J. Halloran, Manager, Maritime Association of Greater Boston, 470 Atlantic Ave., Boston, Mass. 02210 Engineer in Charge of Under Water Cables, New England Power Co., 20 Turnpike Road, Westboro, Mass. 01581 Engineer in Charge of Underwater Cables, New England Tel. & Tel. Co., 50 Oliver St., Boston, Mass. 02110 Ross Tow Boat Co., 457 East Fifth St., Boston, Mass. 02127 J.F. Moran Co., 177 Milk St., Boston, Mass. 02210 Mr. Wayne Hanley, Mass. Audubon Society, Lincoln, Mass. 01773 Mrs. Evelyn Keene, 608 Grove St., Newton, Mass. 02162 Mr. Herb Gordon, 37 Winthrop Ave., Hull Mass. 02045 C.H. Sprague & Son, Co., 125 High St., Boston, Mass. 02110 Seatrain Lines, Inc., 1 Chase Manhattan Plaza, New York, N.Y. Waterman Steamship Corp., 140 Broadway, New York, N.Y. 10005 Bethlehem Steel Corporation, Marine Division Box 6656, Sparrows Point, 21219

Victory Carriers, Inc., 888 Seventh Ave., New York, N.Y. 10019

Director, Marine Services, Sea-Land Services, Tnc., P.O. Box 1050 Elizabeth, N.J. 07207 Supervisor Cargo & Traffic, Atlantic Richfield Co., P.O. Box 7709,

Philadelphia, Penn. 19101

Oil Supply Manager, Getty Oil Co., 660 Madison Ave., New York, N.Y. 10021